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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,681	09/27/2001	Ray M. Richardson	INTL-0607-US (P11748)	2831

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EXAMINER	
SORRELL, ERON J	
ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/964,681	RICHARDSON, RAY M.	
	Examiner	Art Unit	
	Eron J. Sorrell	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 6/5/06.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-6,9-16,19,21-26,30 and 32-36 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) 9-16,19,21-26,30 and 32-36 is/are allowed.

6)☒ Claim(s) 1-6 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 27 September 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dixon et al. (U.S. Patent No. 6,754,732 hereinafter "Dixon") in view of ***C++ How to Program*** by Deitel and Deitel hereinafter "Deitel") and further in view of Hunt et al. (U.S. Patent No. 5,991,298 hereinafter "Hunt").

3. Referring to method claims 1 and 2, Dixon teaches a method and system comprising:

initiating a direct memory access (see lines 17-37 of column 10); and

successively transferring data from the circular buffer in a first processor system to the circular buffer in a second processor system (see figure 9 and lies 17-37 of column 10, note

the circular buffer is comprised of a plurality of storage buffers, this is further evidenced by item 1208 in figure 12A wherein the successive transfer is illustrated by a loop when the source length is not equal to zero).

Dixon fails to explicitly set forth the limitations that the circular buffers are linked buffers arranged in a linked list, however Dixon does teach the buffers being circular and teaches that methods for implementing circular buffers are well known in the art (see lines 16-45 of column 4) and fails to teach the successive transferring is via a first-in-first-out buffer in the first processing system to a first-in-first-out buffer in the second processor system.

Deitel teaches circular buffers implemented as linked buffers arranged as linked lists (see paragraphs 3-5 of page 810 and figure 15.8, note each "node" comprises a buffer for storing a data value and a pointer linking the node to another node).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the method and system of Dixon with the above teachings Deitel such that the circular buffers are linked. One of ordinary skill in the art would have been motivated to make such modification because use of linked lists allow dynamic implantation of

circular buffers that may grow or shrink according to the needs of the system.

Hunt teaches, in an analogous system, successively transferring data via a first-in-first-out buffer in the first processing system to a first-in-first-out buffer in the second processor system (see figure 2 and 3 and the paragraph bridging columns 4 and 5).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Dixon and Deitel with the above teachings of Hunt. One of ordinary skill would have been motivated to make such modification in order to ensure the data is stored in the correct order as suggested by Hunt (see paragraph bridging columns 4 and 5).

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dixon in view of Deitel and further in view of Hunt as applied to claims 1 and 2 above, and further in view of Leger et al. (U.S. Patent No. 5,781,799 hereinafter "Leger").

5. Referring to method claims 3 and 4, the combination of Dixon, Deitel, and Hunt fails to teach, providing the linked list with descriptors that indicate the status of each of the

buffers, wherein the descriptors have flags that indicate whether a corresponding buffer is empty or full.

Leger teaches in an analogous system, providing a linked list (see lines 51-60 of column 11 wherein Leger discloses buffer chaining) with descriptors that indicate the status of the buffers wherein the descriptors have flags that indicate whether a corresponding buffer is empty or full (see paragraph bridging columns 4 and 5).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Dixon, Deitel, and Hunt with the above teachings of Leger. One of ordinary skill in the art at the time of the applicant's invention would have been motivated to make such modification in order to permit the use of non-contiguous data blocks as suggested by Leger (see lines 10-20 of column 3).

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dixon in view of Deitel in and further in view of Hunt as applied to claims 1 and 2 above and further in view of Mecklai et al. (U.S. Patent No. 6,412,029).

7. Referring to method claims 5 and 6, the combination of Dixon, Deitel, and Hunt fails to teach transferring data between

buffers in a cellular telephone, wherein the first processing system includes a baseband processor and the second processor system includes a multimedia processor of the cellular phone, wherein the transferring comprises successively transferring the data directly from the first processor system to the second processor system via an internal bus of the wireless system.

Mecklai teaches, in an analogous system, the above limitation (see figure 2 and paragraph bridging columns 2 and 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to replace the data transfer method of Mecklai with the data transfer method in the combination of Dixon, Deitel, and Hunt. One of ordinary skill would have been motivated to make such modification in order to transfer data using a more efficient DMA technique as suggested by Dixon (see lines 29-35 of column 5 of Dixon).

Allowable Subject Matter

8. Claims 9-16,19,21-26,30,32-36 allowed.

Response to Arguments

9. Applicant's arguments filed 6/5/06 with reference to the Dixon and Deitel references have been fully considered but they

are not persuasive. The applicant argues that the combination of Dixon and Deitel fails to teach a plurality of linked buffers from/to which data is transferred, instead, Dixon only teaches a single circular buffer and Deitel only teaches linked nodes.

As per applicant's argument, the Examiner disagrees. Dixon teaches the use of a circular buffer for use in data transfer operations (see figure 9 and lies 17-37 of column 10, note the circular buffer is comprised of a plurality of storage buffers, this is further evidenced by item 1208 in figure 12A wherein the successive transfer is illustrated by a loop when the source length is not equal to zero). Deitel teaches it is notoriously well known in the art to implement circular buffers using a linked list, and further teaches that a linked list is a data structure of linked nodes, wherein the linked nodes consist of a storage element (buffer) and a pointer (link) to the next node (establishing a set of linked buffers). Therefore the combination of Dixon and Deitel teaches to teach a plurality of linked buffers from/to which data is transferred.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS

ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J. Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EJS
August 17, 2006

August 17, 2006